Bronchial artery aneurysm

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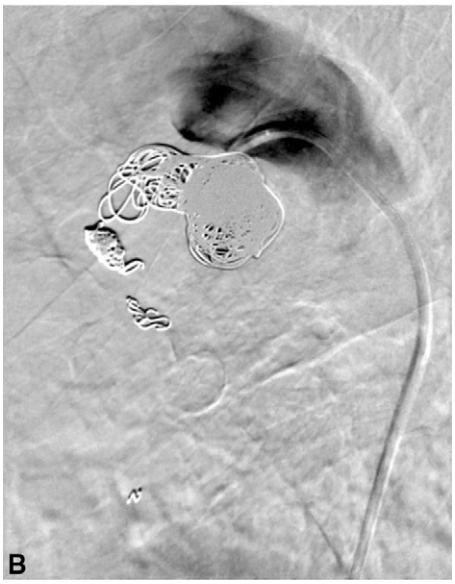
A 70-year-old female was admitted to our hospital after being diagnosed with lung cancer of the left upper lobe and right bronchial artery aneurysm (BAA) identified by computed tomographic angiography (CTA). We performed transcatheter arterial embolization (TAE) using platinum coils. The postoperative angiogram after embolization showed no residual arterial flow, and the procedure was successfully finished with total exclusion of the BAAs.

Preoperative contrast-enhanced CTA demonstrated multiple BAAs (*A*/Cover). Due to the high risk status of the patient, TAE was thought to be more appropriate than open surgical repair.

The procedure was performed via femoral artery, using Guglielmi Detachable Coils and Interlocking Detachable Coils (Boston Scientific, Natick, Mass). The final angiography during procedure demonstrated complete exclusion of the BAA without any collateral blood flow (*B*). Postoperative course was uneventful, and she had a left upper lobectomy and was discharged without any complication.



DISCUSSION

BAA is an extremely rare but life-threatening disease that is observed in <1% of all cases of selective bronchial arteriography. Although its etiology is unknown, it is frequently related with bronchiectasis, chronic bronchopulmonary inflammation, trauma, infection, and vascular anomalies such as Rendu-Osler-Weber and Behcet diseases. BAA is usually asymptomatic, and it can be found and diagnosed incidentally by chest X-ray examination or computed tomography. Treatment after diagnosis should be recommended as soon as possible because of the potential risk of rupture, which is not thought to be associated with the diameter of the aneurysm.[1]

Treatment options include open surgery or endovascular procedure. Transcatheter arterial embolization (TAE) is a well-established endovascular technique and is well accepted as the first choice of treatment for BAA, taking into consideration the hospital stay and minimally invasive treatment for the patient.

When the origin of the aneurysm is very close to the thoracic aorta or the aneurysm neck is not adequate, the orifice of bronchial artery may be covered by thoracic aortic stent graft to achieve complete exclusion of the aneurysm.[2] In the present case, however, we could perform TAE without any thoracic aortic stent grafting and achieve a favorable result.

Long-term intensive follow-up using CTA is absolutely necessary to detect collateral vessels and arterial recanalization for avoiding recurrent aneurysm reported previously.[3]

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